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**Construction Memorandum**

To: District Construction Engineers

From: Paul Jagoda, P.E.  
Construction Engineering Services Engineer

Date: August 15, 2005

Subject: Guidance on the use of Type 2 Object Markers and Portable Vertical Panels

This Construction Memo is intended to offer guidance for the uniform use and application of Type 2 Object Markers and Portable Vertical Panels. This memo supersedes all previous guidance offered on the use of Portable Vertical Panels.

Detailed Drawing 618-00, the Traffic Control Rate Schedule, and all applicable specifications have been revised to recognize these changes. These changes become effective with the August 2005 bid letting.

For assistance or questions related to this subject, please contact the District's Construction Engineering Services Reviewer or myself.

PJ/WCF/wcf

CC:	EPMs	CES Bureau	Lisa Durbin, PE
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## **Guide For Use of Type 2 Object Markers and Portable Vertical Panels** **8-15-05**

Part 1 of this guide provides a summary of the general requirements from the Manual of Uniform Traffic Control Devices (MUTCD) 2003 Edition, on Type 2 Object Markers and Portable Vertical Panels.

Part 2 describes the Department's recommendations for the use of these devices on construction projects.

### **Part 1- Manual on Uniform Traffic Control Devices**

Reference the MUTCD 2003 Edition, for complete information on the use of Type 2 Object Markers and Portable Vertical Panels, below is a summary of information.

**Definition-** Object Marker: A device used to mark obstructions within or adjacent to the roadway.

#### **2003 MUTCD Section 3 C.01 Object Marker Design and Placement Height**

Guidance:

“When used for marking objects in the roadway or objects that are 2.4 m (8 ft) or less from the shoulder or curb, the mounting height to the bottom of the object marker should be at least 1.2 m (4 ft) above the surface of the nearest traffic lane.”

“When used to mark objects more than 2.4 m (8 ft) from the shoulder or curb, the mounting height to the bottom of the object marker should be at least 1.2 m (4 ft) above the ground.”

#### **2003 MUTCD Section 3C.03 Markings for Objects Adjacent to the Roadway**

Support:

“Objects not actually in the roadway are sometimes so close to the edge of the road that they need a marker. These include underpass piers, bridge abutments, handrails, and culvert headwalls. In other cases there might not be a physical object involved, but other roadside conditions exist, such as narrow shoulders, drop-offs, gores, small islands, and abrupt changes in the roadway alignment, that might make it undesirable for a road user to leave the roadway, and therefore would create a need for a marker.”

Type 2 object markers may be used at locations such as those described above.

## **2003 MUTCD Section 6F.58 Channelization Devices**

Support:

“The function of channelization devices is to warn road users of conditions created by work activities in or near the roadway and to guide road users. Channelizing devices include cones, tubular markers, vertical panels, drums, barricades, and temporary raised islands.”

“Channelizing devices provide for smooth and gradual vehicular traffic flow from one lane to another, onto a bypass or detour, or into a narrower traveled way. They are also used to separate vehicular traffic from the work space, pavement drop-offs, pedestrian or shared-use paths, or opposing directions of vehicular traffic.”

## **2003 MUTCD Section 6F.61 Vertical Panels**

Standard:

“Vertical panels (see Figure 6F-7, Sheet 1 of 2) shall be 200 to 300 mm (8 to 12 in) in width and at least 600 mm (24 in) in height. They shall have orange and white diagonal stripes and be retroreflectorized.”

“Vertical panels shall be mounted with the top a minimum of 900 mm (36 in) above the roadway.”

Option:

“Where space is limited, vertical panels may be used to channelize vehicular traffic, divide opposing lanes, or replace barricades.”

## **Part 2- MDT Guidance for use of Type 2 Object Markers and Portable Vertical Panels**

**General-** The intent of Part 2 is:

- To clarify that Type 2 Object Markers replace post mounted vertical panels in all instances;
- To define how Type 2 Object Markers and Portable Vertical Panels should be utilized on MDT construction projects.
- The following guidance rescinds and replaces all previous guidance offered on the use of portable vertical panels.

**Type 2 Object Markers-** Reference Supplemental Detailed Drawing 618-00.

- Use Type 2 Object Markers to mark an object or other roadside condition adjacent to the roadway.
- Refer to Section 3C.03 Markings for Objects Adjacent to the Roadway, MUTCD 2003 Edition noted in Section 1 above.
- Refer to Standard Specification Section 618.03.8 Traffic Control at Drop-Off Areas, for placement and spacing criteria.
- Type 2 Object Markers are not intended for use as Channelizing devices.
- Type 2 Object Markers will be measured under Group 18 in the Traffic Control Rate Schedule or as specified in Section 618.03.8 Traffic Control at Drop-Off Areas.

**Portable Vertical Panels-** Reference Detailed Drawing 618-00.

- Refer to Section 6F.58 Channelization Devices MUTCD 2003 Edition, noted in Section 1 above.
- Use engineering judgment when selecting which Channelizing device best fits a given situation, i.e. flexible guide posts, drums, portable vertical panels, etc.
- Use Portable Vertical Panels for channelization to guide road users.
- Portable Vertical Panels are not intended for use in applications to mark an object or other roadside condition adjacent to the roadway.
- Portable Vertical Panels are measured under Group 19 in the Traffic Control Rate Schedule.